

SEQUENCE LISTING

<110> Timans, Jacqueline C.

<120> Nucleic acids encoding mammalian interleukin-1zeta, related reagents and methods

<130> DX0904K

<140> US 09/398,412

<141> 1999-09-17

<150> US 60/100948

<151> 1998-09-18

<160> 15

<170> PatentIn version 3.1

<210> 1

<211> 1225

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (491)..(1144)

<223>

<400> 1

```

cggtttggtt tctttagaga ttttacagtg ttggttataa ttgtgcactt aatctttatt      60
ttccttatac agtagtcccc cccatcaact gggggcatgt tccatacccc tgggtggattc      120
ctgaaactgc cagtttagtac caaaccttat atagattgtg ttttttctctg tacgcaggcc      180
gacacacagg aaatcataag tcaggagggc cactgccacg caggaaagac ccatctgaac      240
tgctgcaaaa gctccgtgtc gattttattgc ttccacaaat agtgccgata tgcaccaggc      300
actgttgtaa aactgaaaat atgttttggg atgtgccag tctacctagc tctttcaagt      360
aaaggatcct gagaactgaa ggcaaacaga gctccaggag tccaagacag agccacacac      420
cacgaggatc ctggcccagg tcttggactt ccattcccat ttctgttgag taataaactc      480
aacgttgaaa atg tcc ttt gtg ggg gag aac tca gga gtg aaa atg ggc      529
          Met Ser Phe Val Gly Glu Asn Ser Gly Val Lys Met Gly
              1              5              10

tct gag gac tgg gaa aaa gat gaa ccc cag tgc tgc tta gaa gac ccg      577
Ser Glu Asp Trp Glu Lys Asp Glu Pro Gln Cys Cys Leu Glu Asp Pro
      15              20              25

gct gga agc ccc ctg gaa cca ggc cca agc ctg ccc acc atg aat ttt      625
Ala Gly Ser Pro Leu Glu Pro Gly Pro Ser Leu Pro Thr Met Asn Phe
      30              35              40              45

gtt cac aca agt cga aag gtg aag agc tta aac ccg aag aaa ttc agc      673
Val His Thr Ser Arg Lys Val Lys Ser Leu Asn Pro Lys Lys Phe Ser

```

	50	55	60	
att cat gac cag gat cac aaa gta ctg gtc ctg gac tct ggg aat ctc				721
Ile His Asp Gln Asp His Lys Val Leu Val Leu Asp Ser Gly Asn Leu				
	65	70	75	
ata gca gtt cca gat aaa aac tac ata cgc cca gag atc ttc ttt gca				769
Ile Ala Val Pro Asp Lys Asn Tyr Ile Arg Pro Glu Ile Phe Phe Ala				
	80	85	90	
tta gcc tca tcc ttg agc tca gcc tct gcg gag aaa gga agt ctg att				817
Leu Ala Ser Ser Leu Ser Ser Ala Ser Ala Glu Lys Gly Ser Leu Ile				
	95	100	105	
ctc ctg ggg gtc tct aaa ggg gag ttt tgt ctc tac tgt gac aag gat				865
Leu Leu Gly Val Ser Lys Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp				
	110	115	120	125
aaa gga caa agt cat cca tcc ctt cag ctg aag aag gag aaa ctg atg				913
Lys Gly Gln Ser His Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met				
	130	135	140	
aag ctg gct gcc caa aag gaa tca gca cgc cgg ccc ttc atc ttt tat				961
Lys Leu Ala Ala Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr				
	145	150	155	
agg gct cag gtg ggc tcc cgg aac atg ctg gag tgg gcg gct cac ccc				1009
Arg Ala Gln Val Gly Ser Arg Asn Met Leu Glu Ser Ala Ala His Pro				
	160	165	170	
gga tgg ttc atc tgc acc tcc tgc aat tgt aat gag cct gtt ggg gtg				1057
Gly Trp Phe Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val				
	175	180	185	
aca gat aaa ttt gag aac agg aaa cac att gaa ttt tca ttt caa cca				1105
Thr Asp Lys Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro				
	190	195	200	205
gtt tgc aaa gct gaa atg agc ccc agt gag gtc agc gat taggaaactg				1154
Val Cys Lys Ala Glu Met Ser Pro Ser Glu Val Ser Asp				
	210	215		
ccccattgaa cgccttcctc gctaatttga actaattgta taaaaacccc aaacctgctc				1214
actaaaaaaaa a				1225

<210> 2
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 2

Met Ser Phe Val Gly Glu Asn Ser Gly Val Lys Met Gly Ser Glu Asp
1 5 10 15

Trp Glu Lys Asp Glu Pro Gln Cys Cys Leu Glu Asp Pro Ala Gly Ser
20 25 30

Pro Leu Glu Pro Gly Pro Ser Leu Pro Thr Met Asn Phe Val His Thr
35 40 45

Ser Arg Lys Val Lys Ser Leu Asn Pro Lys Lys Phe Ser Ile His Asp
50 55 60

Gln Asp His Lys Val Leu Val Leu Asp Ser Gly Asn Leu Ile Ala Val
65 70 75 80

Pro Asp Lys Asn Tyr Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser
85 90 95

Ser Leu Ser Ser Ala Ser Ala Glu Lys Gly Ser Leu Ile Leu Leu Gly
100 105 110

Val Ser Lys Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln
115 120 125

Ser His Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala
130 135 140

Ala Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln
145 150 155 160

Val Gly Ser Arg Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp Phe
165 170 175

Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr Asp Lys
180 185 190

Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro Val Cys Lys
195 200 205

Ala Glu Met Ser Pro Ser Glu Val Ser Asp
210 215

<210> 3
<211> 657
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) .. (654)
<223>

<400> 3

atg tcc ttt gtg ggg gag aac tca gga gtg aaa atg ggc tct gag gac	48
Met Ser Phe Val Gly Glu Asn Ser Gly Val Lys Met Gly Ser Glu Asp	
1 5 10 15	
tgg gaa aaa gat gaa ccc cag tgc tgc tta gaa gac ccg gct gta agc	96
Trp Glu Lys Asp Glu Pro Gln Cys Cys Leu Glu Asp Pro Ala Val Ser	
20 25 30	
ccc ctg gaa cca ggc cca agc ctc ccc gcc atg aat ttt gtt cac aca	144
Pro Leu Glu Pro Gly Pro Ser Leu Pro Ala Met Asn Phe Val His Thr	
35 40 45	
agt cca aag gtg aag aac tta aac ccg aag aaa ttc agc att cat gac	192
Ser Pro Lys Val Lys Asn Leu Asn Pro Lys Lys Phe Ser Ile His Asp	
50 55 60	
cag gat cac aaa gta ctg gtc ctg gac tct ggg aat ctc ata gca gtt	240
Gln Asp His Lys Val Leu Val Leu Asp Ser Gly Asn Leu Ile Ala Val	
65 70 75 80	
cca gat aaa aac tac ata cgc cca gag atc ttc ttt gca tta gcc tca	288
Pro Asp Lys Asn Tyr Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser	
85 90 95	
tcc ttg agc tca gcc tct gcg gag aaa gga agt ccg att ctc ctg ggg	336
Ser Leu Ser Ser Ala Ser Ala Glu Lys Gly Ser Pro Ile Leu Leu Gly	
100 105 110	
gtc tct aaa ggg gag ttt tgt ctc tac tgt gac aag gat aaa gga caa	384
Val Ser Lys Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln	
115 120 125	
agt cat cca tcc ctt cag ctg aag aag gag aaa ctg atg aag ctg gct	432
Ser His Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala	
130 135 140	
gcc caa aag gaa tca gca cgc cgg ccc ttc atc ttt tat agg gct cag	480
Ala Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln	
145 150 155 160	
gtg ggc tcc tgg aac atg ctg gag tgc gcg gct cac ccc gga tgg ttc	528
Val Gly Ser Trp Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp Phe	
165 170 175	
atc tgc acc tcc tgc aat tgt aat gag cct gtt ggg gtg aca gat aaa	576
Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr Asp Lys	
180 185 190	
ttt gag aac agg aaa cac att gaa ttt tca ttt caa cca gtt tgc aaa	624
Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro Val Cys Lys	
195 200 205	
gct gaa atg agc ccc agt gag gtc agc gat tag	657
Ala Glu Met Ser Pro Ser Glu Val Ser Asp	
210 215	

<210> 4
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 4

Met Ser Phe Val Gly Glu Asn Ser Gly Val Lys Met Gly Ser Glu Asp
1 5 10 15

Trp Glu Lys Asp Glu Pro Gln Cys Cys Leu Glu Asp Pro Ala Val Ser
20 25 30

Pro Leu Glu Pro Gly Pro Ser Leu Pro Ala Met Asn Phe Val His Thr
35 40 45

Ser Pro Lys Val Lys Asn Leu Asn Pro Lys Lys Phe Ser Ile His Asp
50 55 60

Gln Asp His Lys Val Leu Val Leu Asp Ser Gly Asn Leu Ile Ala Val
65 70 75 80

Pro Asp Lys Asn Tyr Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser
85 90 95

Ser Leu Ser Ser Ala Ser Ala Glu Lys Gly Ser Pro Ile Leu Leu Gly
100 105 110

Val Ser Lys Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln
115 120 125

Ser His Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala
130 135 140

Ala Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln
145 150 155 160

Val Gly Ser Trp Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp Phe
165 170 175

Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr Asp Lys
180 185 190

Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro Val Cys Lys
195 200 205

Ala Glu Met Ser Pro Ser Glu Val Ser Asp
210 215

<210> 5

<211> 159

<212> PRT
<213> Homo sapiens

<400> 5

Ser Ala Pro Phe Ser Phe Leu Ser Asn Val Lys Tyr Asn Phe Met Arg
1 5 10 15

Ile Ile Lys Tyr Glu Phe Ile Leu Asn Asp Ala Leu Asn Gln Ser Ile
20 25 30

Ile Arg Ala Asn Asp Gln Tyr Leu Thr Ala Ala Ala Leu His Asn Leu
35 40 45

Asp Glu Ala Val Lys Phe Asp Met Gly Ala Tyr Lys Ser Ser Lys Asp
50 55 60

Asp Ala Lys Ile Thr Val Ile Leu Arg Ile Ser Lys Thr Gln Leu Tyr
65 70 75 80

Val Thr Ala Gln Asp Glu Asp Gln Pro Val Leu Leu Lys Glu Met Pro
85 90 95

Glu Ile Pro Lys Thr Ile Thr Gly Ser Glu Thr Asn Leu Leu Phe Phe
100 105 110

Trp Glu Thr His Gly Thr Lys Asn Tyr Phe Thr Ser Val Ala His Pro
115 120 125

Asn Leu Phe Ile Ala Thr Lys Gln Asp Tyr Trp Val Cys Leu Ala Gly
130 135 140

Gly Pro Pro Ser Ile Thr Asp Phe Gln Ile Leu Glu Asn Gln Ala
145 150 155

<210> 6
<211> 156
<212> PRT
<213> Mus musculus

<400> 6

Ser Ala Pro Tyr Thr Tyr Gln Ser Asp Leu Arg Tyr Lys Leu Met Lys
1 5 10 15

Leu Val Arg Gln Lys Phe Val Met Asn Asp Ser Leu Asn Gln Thr Ile
20 25 30

Tyr Gln Asp Val Asp Lys His Tyr Leu Ser Thr Thr Trp Leu Asn Asp

35

40

45

Leu Gln Gln Glu Val Lys Phe Asp Met Tyr Ala Tyr Ser Ser Gly Gly
 50 55 60

Asp Asp Ser Lys Tyr Pro Val Thr Leu Lys Ile Ser Asp Ser Gln Leu
 65 70 75 80

Phe Val Ser Ala Gln Gly Glu Asp Gln Pro Val Leu Leu Lys Glu Leu
 85 90 95

Pro Glu Thr Pro Lys Leu Ile Thr Gly Ser Glu Thr Asp Leu Ile Phe
 100 105 110

Phe Trp Lys Ser Ile Asn Ser Lys Asn Tyr Phe Thr Ser Ala Ala Tyr
 115 120 125

Pro Glu Leu Phe Ile Ala Thr Lys Glu Gln Ser Arg Val His Leu Ala
 130 135 140

Arg Gly Leu Pro Ser Met Thr Asp Phe Gln Ile Ser
 145 150 155

<210> 7
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 7

Asp Tyr Phe Gly Lys Leu Glu Ser Lys Leu Ser Val Ile Arg Asn Leu
 1 5 10 15

Asn Asp Gln Val Leu Phe Ile Asp Gln Gly Asn Arg Pro Leu Phe Glu
 20 25 30

Asp Met Thr Asp Ser Asp Cys Arg Asp Asn Ala Pro Arg Thr Ile Phe
 35 40 45

Ile Ile Ser Met Tyr Lys Asp Ser Gln Pro Arg Gly Met Ala Val Thr
 50 55 60

Ile Ser Val Lys Cys Glu Lys Ile Ser Thr Leu Ser Cys Glu Asn Lys
 65 70 75 80

Ile Ile Ser Phe Lys Glu Met Asn Pro Pro Asp Asn Ile Lys Asp Thr
 85 90 95

Lys Ser Asp Ile Ile Phe Phe Gln Arg Ser Val Pro Gly His Asp Asn
100 105 110

Lys Met Gln Phe Glu Ser Ser Ser Tyr Glu Gly Tyr Phe Leu Ala Cys
115 120 125

Glu Lys Glu Arg Asp Leu Phe Lys Leu Ile Leu Lys Lys Glu Asp Glu
130 135 140

Leu Gly Asp Arg Ser Ile Met Phe Thr Val Gln Asn Glu Asp
145 150 155

<210> 8
<211> 158
<212> PRT
<213> Mus musculus

<400> 8

Asp Asn Phe Gly Arg Leu His Cys Thr Thr Ala Val Ile Arg Asn Ile
1 5 10 15

Asn Asp Gln Val Leu Phe Val Asp Lys Arg Gln Pro Val Phe Glu Asp
20 25 30

Met Thr Asp Ile Asp Gln Ser Ala Ser Glu Pro Gln Thr Arg Leu Ile
35 40 45

Ile Tyr Met Tyr Lys Asp Ser Glu Val Arg Gly Leu Ala Val Thr Leu
50 55 60

Ser Val Lys Asp Ser Lys Met Ser Thr Leu Ser Cys Lys Asn Lys Ile
65 70 75 80

Ile Ser Phe Glu Glu Met Asp Pro Pro Glu Asn Ile Asp Asp Ile Gln
85 90 95

Ser Asp Leu Ile Phe Phe Gln Lys Arg Val Pro Gly His Asn Lys Met
100 105 110

Glu Phe Glu Ser Ser Leu Tyr Glu Gly His Phe Leu Ala Cys Gln Lys
115 120 125

Glu Asp Asp Ala Phe Lys Leu Ile Leu Lys Lys Lys Asp Glu Asn Gly
130 135 140

Asp Lys Ser Val Met Phe Thr Leu Thr Asn Leu His Gln Ser

145

150

155

<210> 9
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 9

Asp Ala Pro Val Arg Ser Leu Asn Cys Thr Leu Arg Asp Ser Gln Gln
 1 5 10 15

Lys Ser Leu Val Met Ser Gly Pro Tyr Glu Leu Lys Ala Leu His Leu
 20 25 30

Gln Gly Gln Asp Met Glu Gln Gln Val Val Phe Ser Met Ser Phe Val
 35 40 45

Gln Gly Glu Glu Ser Asn Asp Lys Ile Pro Val Ala Leu Gly Leu Lys
 50 55 60

Glu Lys Asn Leu Tyr Leu Ser Cys Val Leu Lys Asp Asp Lys Pro Thr
 65 70 75 80

Leu Gln Leu Glu Ser Val Asp Pro Lys Asn Tyr Pro Lys Lys Lys Met
 85 90 95

Glu Lys Arg Phe Val Phe Asn Lys Ile Glu Ile Asn Asn Lys Leu Glu
 100 105 110

Phe Glu Ser Ala Gln Phe Pro Asn Trp Tyr Ile Ser Thr Ser Gln Ala
 115 120 125

Glu Asn Met Pro Val Phe Leu Gly Gly Thr Lys Gly Gly Gln Asp Ile
 130 135 140

Thr Asp Phe Thr Met Gln Phe Val Ser Ser
 145 150

<210> 10
 <211> 153
 <212> PRT
 <213> Mus musculus

<400> 10

Asp Val Pro Ile Arg Gln Leu His Tyr Arg Leu Arg Asp Glu Gln Gln
 1 5 10 15

Lys Ser Leu Val Leu Ser Asp Pro Tyr Glu Leu Lys Ala Leu His Leu
20 25 30

Asn Gly Gln Asn Ile Asn Gln Gln Val Ile Phe Ser Met Ser Phe Val
35 40 45

Gln Gly Glu Pro Ser Asn Asp Lys Ile Pro Val Ala Leu Gly Leu Lys
50 55 60

Gly Lys Asn Leu Tyr Leu Ser Cys Val Met Lys Asp Gly Thr Pro Thr
65 70 75 80

Leu Gln Leu Glu Ser Val Asp Pro Lys Gln Tyr Pro Lys Lys Lys Met
85 90 95

Glu Lys Arg Phe Val Phe Asn Lys Ile Glu Val Lys Ser Lys Val Glu
100 105 110

Phe Glu Ser Ala Glu Phe Pro Asn Trp Tyr Ile Ser Thr Ser Gln Ala
115 120 125

Glu His Lys Pro Val Phe Leu Gly Asn Asn Ser Gly Gln Asp Ile Ile
130 135 140

Asp Phe Thr Met Glu Ser Val Ser Ser
145 150

<210> 11
<211> 153
<212> PRT
<213> Homo sapiens

<400> 11

Cys Arg Pro Ser Gly Arg Lys Ser Ser Lys Met Gln Ala Phe Arg Ile
1 5 10 15

Trp Asp Val Asn Gln Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val
20 25 30

Ala Gly Tyr Leu Gln Gly Pro Asn Val Asn Leu Glu Glu Lys Ile Asp
35 40 45

Val Val Pro Ile Glu Pro His Ala Leu Phe Leu Gly Ile His Gly Gly
50 55 60

Lys Leu Cys Leu Ser Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln
65 70 75 80

Leu Glu Ala Val Asn Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp
85 90 95

Lys Arg Phe Ala Phe Ile Arg Ser Asp Ser Gly Pro Thr Thr Ser Phe
100 105 110

Glu Ser Ala Ala Cys Pro Gly Trp Phe Leu Cys Thr Ala Met Glu Ala
115 120 125

Asp Gln Pro Val Ser Leu Thr Asn Met Pro Asp Glu Gly Val Met Val
130 135 140

Thr Lys Phe Tyr Phe Gln Glu Asp Glu
145 150

<210> 12
<211> 153
<212> PRT
<213> Mus musculus

<400> 12

Cys Arg Pro Ser Gly Lys Arg Pro Cys Lys Met Gln Ala Phe Arg Ile
1 5 10 15

Trp Asp Thr Asn Gln Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Ile
20 25 30

Ala Gly Tyr Leu Gln Gly Pro Asn Ile Lys Leu Glu Glu Lys Ile Asp
35 40 45

Met Val Pro Ile Asp Leu His Ser Val Phe Leu Gly Ile Lys Gly Tyr
50 55 60

Lys Leu Tyr Met Ser Cys Val Lys Ser Gly Asp Asp Ile Lys Leu Gln
65 70 75 80

Leu Glu Glu Val Asn Ile Thr Asp Leu Ser Lys Asn Lys Glu Glu Asp
85 90 95

Lys Arg Phe Thr Phe Ile Arg Ser Glu Lys Gly Pro Thr Thr Ser Phe
100 105 110

Glu Ser Ala Ala Cys Pro Gly Trp Phe Leu Cys Thr Thr Leu Glu Ala
115 120 125

Asp Arg Pro Val Ser Leu Thr Asn Thr Pro Glu Glu Pro Leu Ile Val
130 135 140

Thr Lys Phe Tyr Phe Gln Glu Asp Gln
145 150

<210> 13
<211> 156
<212> PRT
<213> Mus musculus

<400> 13

Met Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala
1 5 10 15

Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu
20 25 30

His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn
35 40 45

Arg Ala Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly
50 55 60

Gly Ser Gln Cys Leu Ser Cys Gly Thr Glu Lys Gly Pro Ile Leu Lys
65 70 75 80

Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser
85 90 95

Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe
100 105 110

Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Ser Pro Glu Ala
115 120 125

Asp Gln Pro Val Arg Leu Thr Gln Ile Pro Glu Asp Pro Ala Trp Asp
130 135 140

Ala Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp
145 150 155

<210> 14
<211> 160
<212> PRT
<213> Mus musculus

<400> 14

Met Asn Lys Glu Lys Glu Leu Arg Ala Ala Ser Pro Ser Leu Arg His
1 5 10 15

Val Gln Asp Leu Ser Ser Arg Val Trp Ile Leu Gln Asn Asn Ile Leu
20 25 30

Thr Ala Val Pro Arg Lys Glu Gln Thr Val Pro Val Thr Ile Thr Leu
35 40 45

Leu Pro Cys Gln Tyr Leu Asp Thr Leu Glu Thr Asn Arg Gly Asp Pro
50 55 60

Thr Tyr Met Gly Val Gln Arg Pro Met Ser Cys Leu Phe Cys Thr Lys
65 70 75 80

Asp Gly Glu Gln Pro Val Leu Gln Leu Gly Glu Gly Asn Ile Met Glu
85 90 95

Met Tyr Asn Lys Lys Glu Pro Val Lys Ala Ser Leu Phe Tyr His Lys
100 105 110

Lys Ser Gly Thr Thr Ser Thr Phe Glu Ser Ala Ala Phe Pro Gly Trp
115 120 125

Phe Ile Ala Val Cys Ser Lys Gly Ser Cys Pro Leu Ile Leu Thr Gln
130 135 140

Glu Leu Gly Glu Ile Phe Ile Thr Asp Phe Glu Met Ile Val Val His
145 150 155 160

<210> 15
<211> 169
<212> PRT
<213> Homo sapiens

<400> 15

Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly Arg Ala Val Tyr
1 5 10 15

Gln Ser Met Cys Lys Pro Ile Thr Gly Thr Ile Asn Asp Leu Asn Gln
20 25 30

Gln Val Trp Thr Leu Gln Gly Gln Asn Leu Val Ala Val Pro Arg Ser
35 40 45

Asp Ser Val Thr Pro Val Thr Val Ala Val Ile Thr Cys Lys Tyr Pro

50

55

60

Glu Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln
65 70 75 80

Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro Thr
85 90 95

Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr Gly Gln Pro Glu
100 105 110

Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr Gly Arg Thr Ser
115 120 125

Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile Ala Ser Ser Lys
130 135 140

Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu Gly Lys Ser Tyr Asn
145 150 155 160

Thr Ala Phe Glu Leu Asn Ile Asn Asp
165